

Sorting Summary

| | Average | Worst Case |
|-----------|----------------------|----------------------|
| Bubble | $O(n^2)$ | $O(n^2)$ |
| Selection | $O(n^2)$ | $O(n^2)$ |
| Insertion | $O(n^2)$ | $O(n^2)$ |
| Quicksort | $O(n \times \log n)$ | $O(n^2)$ |
| Mergesort | $O(n \times \log n)$ | $O(n \times \log n)$ |

- Quicksort (or variations) are commonly used everywhere, because the worst case is avoidable
- Although it has a poor complexity, insertion sort is fast for very small data sets (small n)
- Mergesort is fastest for serially-accessible data